

New 'Gammasphere' detector is on a roll

Gammasphere is up and running at Argonne's Physics Division, and has already produced cutting-edge physics data.

The 12-ton gamma-ray detector saw its first beam from the Argonne Tandem Linear Accelerator System (ATLAS) on Jan. 16. After a few days of calibration and adjustments, the first experiment was conducted on Jan. 23.

"The device is incredibly powerful," said Kim Lister (PHY). "The first test was a standard reaction, an oxygen beam on a nickel target. Even so, after 10 minutes of running, we could see new nuclear states that had never been seen before."

Just one day's worth of work by scientists from the University of Staffordshire, England, and 15 collaborators from around the world produced new data on "isospin symmetry." The experiment answered questions about the behavior of protons and neutrons inside the atomic nucleus. The group took advantage of Gammasphere's ability to detect extremely weak signals to confirm that nuclear forces acting on protons and neutrons are equal, or symmetrical, for large nuclei as well as the well-studied lighter nuclei, and are only disturbed by the Coulomb force (akin to the like poles of a magnet repelling each other) acting on the protons alone.

The \$20 million instrument is a gamma-ray "microscope" designed to help answer basic questions about the structure and behavior of atomic nuclei — especially those



SPHERE GEAR — Physicist Kim Lister puts the finishing touches on Gammasphere. Just a few days after this photo was shot, the device was performing cutting-edge physics experiments. *Photo by George Joch*

forms of isotopes that contain large excesses of protons and neutrons.

At the heart of the 10-foot-tall device is a silvery machined metal sphere about seven feet in diameter pierced by 116 holes. Yard-long detectors fit through the holes, their blunted tips converging near the center of the sphere. The detectors are cooled to -320 F (-196 C) with liquid nitrogen to operate properly.

Gammasphere's 108 single-crystal detectors, cylinders of high-purity germanium about the size of a coffee cup, intercept the gamma rays given off by nuclei created when ATLAS beams strike targets of various materials. The nuclei fly on for another 30 feet through another detector called the Fragment Mass Analyzer (FMA), which mea-

(Continued on page 3)

Lab has new home page and 'intranet'

Argonne unveils a newly designed home page and a new "intranet" home page today on the World Wide Web.

The new home page was designed to load faster than the previous page and to make it easier for outside users to find information about Argonne's research programs. It can be found at <http://www.anl.gov/>, the same URL as the old home page.

The new "Argonnet" home page, located at <http://www.anl.gov/OPA/argonnet>, is aimed mainly at Argonne employees.

Its goal is to provide employees with a starting point to locate Argonne Web pages with information relevant to their jobs, benefits and other aspects of working at Argonne.

Argonne-West work requests are now online

Starting today, work requests for Argonne-West's Plant Services may be submitted via a new page on the World Wide Web.

The work request on-screen form can be accessed through the Maintenance Home Page at <http://plato.anlw.anl.gov/workreq/mainhome.asp>. Employees can also find the Maintenance Home Page by opening the Argonne-West Home Page, then selecting ANL-W Intranet under "Additional Information." Select "Divisions and Facilities," then scroll down to Operations Division and select "maintenance."

To submit a work request select "Generate." For help creating the request, open the "User Guide." Frequent users should bookmark the address for future reference.

New statement to show value, cost of benefits

Each regular employee at both Argonne sites will soon receive a personalized statement detailing the costs and values of Argonne's benefits programs to both the laboratory and to the employee.

The new Employee Benefit Statement includes:

- Brief descriptions of the laboratory's various benefit plans, including retirement, medical, dental and life insurance coverage and the benefits options chosen by the employee.

- The amount of life insurance and disability protection selected by the employee.

- The annual cost to the employee of the various plans and the annual cost to Argonne of providing those benefits.

- The total value of both base pay and benefits.

Employee Benefit Statement information is based on plan participation information and projected cost as of Jan. 1. Salary adjustments or promotions dur-

ing the year will affect the costs and values shown on the statement.

Statements will be mailed to employees' homes.

Since this will be the first year for the Employee Benefit Statement, employees should check the statement carefully for accuracy. Contact Employee Benefits at ext. 2-2991 (at Argonne-East) or ext. 3-7227 (at Argonne-West) to report errors or for more information.

Inside this issue ■ DEP's 'Newton' moves to the Web ■ ES's Larsen honored by automotive engineers ■ Workshop to focus on pollution prevention

Newton's 'Ask-a-Scientist' moves to the Web

Has anyone ever seen an atom? What kinds of careers are available in environmental science? Will an airplane become lighter if 2,000 pounds of pigeons start flying around inside it?

Students from around the world have found answers to more than 15,000 questions like these via Newton, a service of Argonne's Division of Educational Programs now available on the World Wide Web.

Previously only accessible by Telnet, a text-based program, Newton can now be searched via a database of thousands of question and answers using standard Web browsers. Questions posed by students are answered by scientists or engineers via electronic mail, then posted to the "Ask a Scientist" database.

The move to the Web comes in response to changing technology, said Harold Myron, DEP director. Telnet once gave the largest number of students access to the service even if they didn't have state-of-the-art equipment.

"Since Newton moved to the World Wide Web, the number of questions has jumped dramatically," Myron said. "And so far, nearly 100 percent of the questions receive an answer."

Newton was developed six years ago by DEP, in cooperation with Chicago area science teachers. It provides K-12 science, math and computer science teachers and their students a place to practice telecommunications, to retrieve information on a wide variety of subjects,

to contact research scientists from all over the world and to open communications between classroom teachers.

In addition to the "Ask a Scientist" feature, Newton provides a variety of discussion areas, conferencing ("chat") environments for teachers and scientists and Internet service for teachers. Software for using these services is available on the Newton web site.

Newton also receives and stores information on world medical concerns, Jet Propulsion Laboratory news, computer technical assistance and Problem Based Learning listservers.

Links to Newton can be found on the DEP home page at <http://www.dep.anl.gov>.

EAD web site featured by USA Today

A website developed by the Environmental Assessment Division that makes it easier for the public to participate in environmental decisions has received a "Hot Site" award from USA Today.

The web site, developed by EAD for the U.S. Department of Energy, provides information to the public for the long-term management of depleted uranium hexafluoride (UF₆). The Draft Depleted UF₆ Programmatic Environmental Impact Statement (PEIS) and related documents are presented for review and public comment.

"USA Today receives 50-100 applications per day for the Hot Site award, so receiving this award indicates that making this information available to the public is important," said Bob Sullivan (EAD). "The 'Hot Sites' page will be viewed by thousands of people and is good exposure for the remainder of the public comment period."

The uranium data web site will be listed in the "Hot Sites" archives for the next several months. USA Today's "Hot Sites" can be accessed at <http://www.usatoday.com/life/cyber/ch.htm>. Click on the link "Browse through previous days' Hot Site reviews" to find the hot sites for Jan. 27.

Robert Larsen elected to SAE's board of directors

Robert P. Larsen (ES) has been elected to the board of directors of the Society of Automotive Engineers International (SAE).

SAE has 75,000 members from 30 countries. Larsen is the first staff member from a federally funded facility to serve on the SAE board in the organization's 75-year history.

Larsen is manager of the lab's fuels and vehicles system section in the Transportation Technology Research and Development Center. His responsibilities include developing components and systems for hybrid-electric vehicles (HEVs) and organizing advanced-technology, engineering design competitions using new types of vehicles and fuels.

HEVs are propelled by two energy sources, most commonly an



Larsen

electric motor and an internal combustion engine powered by gasoline or an alternative fuel. These vehicles combine the efficiency and low emissions of an electric vehicle with the power and distance of a more conventional car or truck.

Larsen also manages all the laboratory's fuels-related activities, including testing of one of the federal government's largest fleets of alternative-fuel vehicles on site at Argonne.

Larsen has been an active member of SAE's Chicago Section, serving as Advanced Technology Vice-Chair and a member of the Governing Board since 1991.

He worked with the U.S. Department of Energy (DOE) and SAE to expand SAE's annual series of engineering design competitions to include vehicle competitions. Begun in 1986, these DOE-sponsored competitions focus on improving fuel economy, developing advanced technologies for alternative-fuel vehicles, and reducing vehicle emissions. Competitions now underway include the Ethanol Vehicle Challenge and the FutureCar Challenge, an ongoing competition that is cosponsored by the U.S. Council for Automotive Research and the Big Three automakers.

HR offers management, proposal writing classes

Human Resources is offering classes in performance management and writing research and development proposals.

"Writing R&D Proposals" (HR223) will present a systematic approach to creating winning proposals and white papers. Participants will learn to plan, schedule, package and manage their proposals.

The class was custom-designed for Argonne.

Classes will be held Monday, March 23, and Tuesday, March 24, from 8:30 a.m. to 5 p.m. in Argonne-East's Building 402, Room E1100. Cost is \$575. Deadline for registration is Wednesday, Feb. 18.

"Performance Management" (HR561) provides participants with management skills to more effec-

tively manage, document and influence the performance of employees. The class addresses all components of the performance appraisal and provides specific instruction on assigning ratings and overall score.

Class will be held Thursday, Feb. 26, from 9 a.m. to noon in Argonne-East's Building 362, Room F108.

Feb. 25 workshop to focus on pollution prevention

"The Three P's of Pollution Prevention: Perspective, Purpose and Passion," a pollution prevention awareness session, will be held on Wednesday, Feb. 25, at 1:30 p.m. in Argonne-East's Building 362 Auditorium.

Joe Estey of Prolepsis Training, Richland, Wash., will be the featured speaker. Estey is a specialist

in presenting workshops on team dynamics, pollution prevention and cultural change in the work place.

The session is open to all Argonne employees and contractors who would like to learn more about incorporating pollution prevention into workplace activities. Argonne employees who have received funding in the past under Argonne's

Waste Management and Pollution Prevention (WM&PP) Program are urged to attend.

The session is sponsored by the Waste Minimization and Pollution Prevention Program and the WM&PP Advisory Committee. For more information on the awareness session call Keith Trychta (EMO) at ext. 2-1476.

Students invited to participate in research

The Division of Educational Programs will conduct an eight-week summer program in which college-bound students participate in laboratory research under the direction of Argonne scientists.

The summer program begins June 15 and ends Aug. 7. Participants receive a stipend of \$210 per week.

Students must have a grade point average of at least 3.0 on a 4.0 scale, be U.S. citizens or permanent resident aliens, have graduated from high school in 1998 and be enrolled to attend college in fall 1998.

The application deadline is Monday, April 6. For an application, call Lisa Reed (DEP) at ext. 2-3366 or send e-mail to lreed@anl.gov.

Chess Club plans lunchtime speed-chess tourney

The Argonne Chess Club will hold lunchtime speed-chess tournaments open to all employees Monday, Feb. 16 and 23, and March 2 and 9 in Argonne-East's Building 362, Room E188.

Entry fee is \$1. All entry fees

will be returned as prizes. The chess club will provide all necessary equipment.

All chess games will be timed at 5 minutes each. The tournaments will use Swiss system pairings if more than six players enter,

otherwise pairings will be round robin.

Registration ends at noon. Games will start at 12:05 p.m.

For more information, call Dave Baurac (OPA) at ext. 2-5584 or Bob Hill (RA) at ext. 2-4865.

Seminars

Send seminar listings to Evie Fagan, Building 201, Room 2U-09 (OPA-201). Deadline is 5 p.m. Monday. Seminar listings *only* can be sent by E-mail to evie_fagan@qmgate.anl.gov.

Monday, Feb. 16

Chemistry Division Monday Morning Seminar Series: **"Actinide Solutions: Fundamentals, Applications, Implications"** by Ken Nash, (CHM). 11 a.m., Bldg. 200 Auditorium.

Chemistry Division Seminar: **"Electronic and Magnetic Phenomena of Organic and Inorganic Low-Dimensional Solids"** by Brian H. Ward, Department of Chemistry, University of Florida, Gainesville. 1:30 p.m., Bldg. 200, Conference Room J183.

High Energy Physics Division Theoretical Physics Seminar: **"Solution to the ρ - π Puzzle of the J/Ψ and Ψ' Decays"** by Yu-Qi Chen, Ohio State University, Columbus. 2 p.m., Bldg. 362, Conference Room E188.

Physics Division Seminar: **"Nucleus-Nucleus Collisions, Multifragmentation and the Liquid-Gas Phase Transition"** by William Lynch, Michigan State University, East Lansing. 3:30 p.m., Bldg. 203, Conference Room R150.

Tuesday, Feb. 17

Chemistry Division Seminar: **"Femtosecond Dynamics of Photoinduced Molecular Detachment Reactions"** by Una Marvet, Department of Chemistry, Michigan State University, East Lansing. 11 a.m., Bldg. 200, Conference Room J193.

Wednesday, Feb. 18

Materials Science Division Special Colloquium: **"Structure and Reactivity of Inorganic Monolayers on Electrode Surfaces"** by Andrew Gewirth, Department of Chemistry, University of Illinois, Urbana. 11 a.m., Bldg. 212, Conference Room A157.

High Energy Physics Division Seminar: **"Gravitons, Membranes, Black Holes and Matrix Mechanics"** by Emil J. Martinec, Enrico Fermi Institute, The University of Chicago, Ill. 3:30 p.m., Bldg. 362, Conference Room F108.

Thursday, Feb. 19

Chemistry Division Seminar: **"Surprising Effects of Microwaves and Magnetic Fields on Photosynthetic Energy Conversion"** by Arnold Hoff, Department of Biophysics, Huygens Lab of the State University, Leiden, Netherlands. 10:30 a.m. Bldg. 200, Conference Room J183.

Experimental Facilities Division Seminar: **"New Instruments and New Techniques for Materials Science at the ALS"** by Tony Warwick, Lawrence Berkeley National Laboratory, Berkeley Hills, Calif. 4 p.m., Bldg. 401, Conference Room A1100.

Friday, Feb. 20

Physics Division Colloquium: **"Diffusional Enhancement of Magnetic Resonance Imaging"** by Paul C. Lauterbur, Biomedical Magnetic Resonance Laboratory, University of Illinois, Urbana. 11 a.m., Bldg. 203 Auditorium.

Monday, Feb. 23

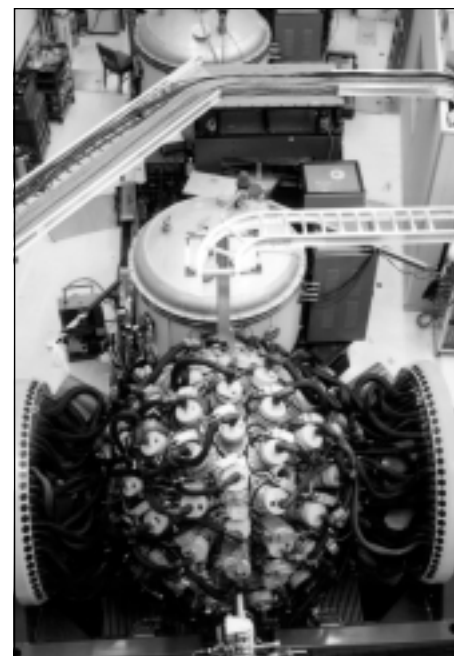
Chemistry Division Monday Morning Seminar Series: **"Mass Transfer Between Phases: From Molecular Descriptions of Interfaces to Macroscopic Models of Transport"** by Bruce Garrett, Pacific Northwest National Laboratory, Richland, Wash. 11 a.m., Bldg. 200 Auditorium.

Argonne-West

Friday, Feb. 20

Argonne-West Human Resources Seminar: **"Conducting In-House Investigations"** by Matt Shiff, attorney, and John Hyzer, Human Resources, Argonne-East. Session one: 8:15 a.m. to noon. Session two: 12:30 p.m. to 4:15 p.m. L&O Conference Room.

Check the Argonne News World Wide Web site for additional seminars, and those arranged to late to appear in the paper version: <http://www.anl.gov/news.html>



TEAMWORK – Gammasphere, shown closed in the foreground, is working in tandem with the Fragment Mass Analyzer, the cylindrical objects in the back.

Gammasphere begins physics experiments

(Continued from page 1)

sures their mass and records their eventual decay.

The sensitive combination of Gammasphere and FMA should be able to pick out one interesting nucleus from a "background" of 10,000,000 less interesting ones.

Although the device has only been in operation for a short time, physicists already are planning to upgrade the Gammasphere-FMA detector system.

First on the agenda is the "Microball," a spherical detector about the size of a basketball that will nestle in Gammasphere's central cavity. Microball will intercept charged particles and provide a "factor of 10 improvement" over the current arrangement, Lister said.

The FMA will be fitted with silicon detectors that will enable physicists to probe the nuclear behavior of the heaviest elements, and may provide hints at what lies beyond the known periodic table.



Argonne News is published weekly for Argonne employees by the Office of Public Affairs. Send news items to Editor Dave Jacqu , Building 201, Room 2Q-02 (OPA-201). Voice: ext. 2-5582. Fax: ext. 2-5274. E-mail: info@anl.gov. Argonne-West correspondent: Dolores Lagerquist, Bldg. 752, ext. 3-7523. Deadline for all materials is 5 p.m. Monday. Argonne National Laboratory is operated by the University of Chicago for the U.S. Department of Energy. Vol. 51, No. 6.

Classified Ads

MISCELLANEOUS

MISCELLANEOUS — Spark wire set, new, for VW Jetta, '85 - '90, 4 cyl. \$48. Anniversary clock w/dome, made in Germany. \$25. Martha Teitlus, (708) 233-2654.

MISCELLANEOUS — Precious Moments collection, will send list. Lamp table w/magazine rack. \$20. Diane Redman, (815) 293-0272 - after 6 p.m. or leave message.

BEANIE BABIES — New releases, Iggy, Prance, Pounce, Bruno, Spunky, Puffer, Smoochy, quantities available. \$15/each or 5 for \$14. Bill Shack, (630) 964-3862.

EXERCISER — Lifestyler Cardio Fit Plus, push & pull exerciser, low body impact. New \$250 - asking \$100. Sandra Tobolic, (815) 439-3918.

DESK — Office desk, formica, 5-drawer, good condition. \$25. Linda DeVito, (708) 349-1807.

MISCELLANEOUS — Tropical fish. 10 cents each. Exercise bike. \$10. Foley saw sharpener. \$50. Lock & key collection. \$30. Ray Holdsworth, (630) 257-2682.

LYRIC OPERA TICKETS — 2, 1st balcony, Mozart's The Marriage of Figaro, starring Renée Fleming and Bryn Tarfel, Saturday, Feb. 21, '98. \$48/each. Bob Giese, (630) 355-8698.

AIR BIKE — Tunturi F715i air bike, combines efficient upper and lower body workout, excellent aerobic/muscular and cardiovascular benefits, like new. New \$400 - asking \$150 o.b.o. Hana Bizek, (630) 971-1137.

COMPUTER — IBM Pentium laptop computer, 1.08 gig hard drive, 16 Meg RAM, 28.8 modem, Win95 and Office 98, color display. \$800. Elsie Brown, (630) 985-2670.

PORTABLE GAS GENERATOR — Coleman Powermate Maxa, 4200 ER, 120 - 240 volt, 37/17.5 amp, single phase, multiple outlet, 6 hour running time, brand new and original shipping case. \$500 o.b.o. Evie Fagan, (630) 960-5563.

MISCELLANEOUS — 3 wooden shelves w/brackets & mountings, 1" x 12" x 32", 1" x 12" x 42" & 1" x 12" x 52". Good condition. Best offer. Dishes, complete 8 place setting, white, extra bowls. Best offer. Metal Typewriter table, wood grain top, on casters. Best offer. Desk chair, on casters, white w/blue seat. Best offer. Evie Fagan, (630) 960-5563.

MISCELLANEOUS — Sears, 14 HP Kohler engine, 42" deck garden tractor, excellent condition, maintained bi-yearly through Sears maintenance. \$900. Nordic Walk-Fit, excellent condition, includes video. \$275. Artography 400- Opaque projector, excellent condition, hardly used. \$400. Lisa Peters, (815) 741-4097.

MISCELLANEOUS — Kitchen set, all wood, dark walnut, w/4 chairs, one year new. New \$500 - make offer. Riding lawn mower, MTD, 8 HP, electric start, 30" cut, 5-speed, w/reverse. \$250. Richard Pagel, (630) 960-9016.

CD-ROM TITLES — Magic School Bus, explores the solar system. \$15. Putt Putt Goes to the Moon. \$10. Fine Artist. \$5. Dan McNamee, (815) 726-1359.

MISCELLANEOUS — Compound bow & case, 50", 25" - 27" draw. \$50. New GM air conditioning compressor. \$50. Canon BJ-100 b/w printer, new cartridge & all accessories. \$50. 2 brass fireplace screens. \$10/each. Rod Habbe, (815) 838-3444.

SNOWMOBILE — 1990 Yamaha SRV, good condition, carbides, 96 studs, handle bar warmers, great runner. \$1,750. Susan Sarvey, (630) 972-1260.

Classified ad request forms are available in stockrooms, at the Office of Public Affairs in Building 201, and at Argonne-West's Building 752, Room D109. The old half-sheet forms are acceptable, but note that the deadline is incorrect. Deadline for classified ads is **5 p.m. Monday**.

Please note: All classified ads appear on Argonne's World Wide Web site and can be seen by the public.

Requests can be submitted by fax to ext. 2-5274, or by inter-office mail to Evie Fagan, Building 201, Room 2U-09 (OPA-201). A drop-off box is located at the *Argonne News* office, Building 201, room 2Q-02 and at 2U-09.

Request forms must be signed and must include a home phone number. Ads cannot be accepted by phone or electronic mail. Please limit ads to 25 words; longer ads may be edited. Housing listed for sale or rent is available without regard to race, creed, color or national origin.

Argonne-West employees are welcome to submit classified ads to *Argonne News*. Request forms are available at the office of Argonne-West Correspondent Dolores Lagerquist, Building 752, Room D109. When completed, fax the request form to the *Argonne News* office at (630) 252-5274.

GUITAR/AMP — Electric guitar, Electra, red. \$200. Dean Markey amp. \$300. Sharon Fisher, (815) 838-1807.

COMPUTER — Macintosh IICI, 20 MB RAM, 220 MB hard drive, 14" color monitor, 2X CD-ROM, 14.4 kps fax modem, good for word processing, graphics & modest web browsing. \$500 o.b.o. Mike Hulver, (708) 333-2816.

MISCELLANEOUS — Toro snowblower, gas powered, rarely used. \$95. Ryobi leaf blower/vacuum, gas powered, rarely used. \$35. Bike trailer, seats 2 children. \$50. Chris Bischof, (630) 515-9413 or c_bischof@acm.org.

MISCELLANEOUS — Oak dining room set, large table w/2 leaves, lighted china cabinet and buffet, 5 years old, moving, must sell. \$1,000. 14', round trampoline, extra new trampoline bed & dome tent. \$200. Midge Urban, (815) 436-5140.

WASHERS/DRYERS — GE, set, heavy duty, large capacity, almond, electric dryer. \$350/set. Whirlpool, set, white, electric dryer. \$200/set. Jean Slater, (630) 801-4194.

HOUSE FURNACE — 100,000 BTU, 6-years old, new heat exchanger. \$300 o.b.o. Susan Sarvey, (630) 972-1260.

BUNK BED — Metal bunk bed featuring twin top & full lower, lower is convertible futon. \$100 o.b.o. Skip Robinson, (815) 741-9080.

PRINTER — Hewlett-Packard printer, model 560C, new color cartridge last month. \$100. Sandra Tollaksen, (630) 897-2339.

WATERCRAFT — 1996 Sea-Doo SP watercraft w/trailer, less than 50 hours of use. Take over payments. Jeff Alicz, (630) 393-6261.

AUTOMOBILES

1989 MERCURY — Sable GS, AT, AC, . almost new tires, V6, maroon, 4-door. B.R. Venigalla, (630) 972-0942.

1986 OLDSMOBILE — Ciera, 4-door sedan, cruise control, AC, low miles, perfect interior. Fred Pausche, (630) 852-0133.

1987 FORD — Tempo, red, 4-door, AT, new tires & battery, 130K miles, runs reliably, great first car. \$1,200 o.b.o. Ranjini Chatterjee, (847) 698-6955.

1984 CHEVROLET — Cavalier RS, 4-speed, stick, recent clutch, starts, runs, stops. \$400 o.b.o. David Yuen, (630) 469-2871.

1988 DODGE — Grand Caravan, 3.0L V6, AT, AC, PB, PS, AM/FM stereo, tilt wheel, cruise control, 74K miles, garage kept, no rust. \$5,500 o.b.o. Mike Janik, (708) 636-5305.

1988 VOLKSWAGEN — Cabriolet, red w/white top, AT, AC, AM/FM stereo, mechanically sound, 114K miles. \$2,500. Dave Hill, (630) 553-9044.

1983 BUICK — Century, good transportation, good body. \$1,100 o.b.o. Mary Donovan, (815) 485-5593.

1985 NISSAN — Sentra wagon, high mileage, recent fender bender, new tires, brakes, starter, runs. \$350. Dick Combs, (708) 479-1696.

1986 VOLVO — 744 GLE, no rust, runs well, 4-door, 162K miles, 28 MPG. \$2,400 o.b.o. Don Yuzeitis, (708) 403-0445.

1995 GMC — Sierra SKL, extended cab, 4 x 4 lid, boards, garage kept, 41K miles, mint condition. \$19,900. Rich Stepuszek, (708) 361-4394.

1990 PLYMOUTH — Laser, 80K miles, PW, PM, mags, 5-speed, stereo, AC, excellent condition. \$3,000. Lecesne Nathalie, (630) 252-5643.

1989 PONTIAC — Sunbird LE, well maintained, new tires, battery, muffler, AGR valve, very clean, 83K miles. \$2,300. Patrick Decrock, (630) 910-6135.

1985 JEEP — Grand Wagoneer, leather interior, CD player, great shape, no rust, new undercoat. \$6,500. Steve Armstrong, (708) 246-9336.

1978 MERCURY — Marquis, beautiful red, no rust, excellent shape. \$4,200. Sandra Tollaksen, (630) 897-2339.

1990 GMC — Jimmy S 15, 4 x 4, AT, AC, PW, PL, CD player, 105K miles. \$5,300 o.b.o. Marsha Mehaffey, (815) 941-4282.

1986 PONTIAC — Station wagon, engine needs work, body in good condition, car is good for parts. \$300 o.b.o. Paul Rausch, (630) 357-2773.

1991 OLDSMOBILE — 88 Royale Brougham, 4-door, luxury sedan, very dependable, fully loaded, auto climate control. \$5,800 o.b.o. Debbie Mounce, (815) 834-0904.

1993 SATURN — SW2, hatchback, AT, ABS, AC, PW, PL, airbag, cruise, AM/FM cassette, 59K miles, excellent condition. \$6,950. Dick Weeks, (708) 301-7745.

HOUSING

CONDO/SALE — Timber Oaks Subdivision, Port Richey, Fla., must be 55 years of age, 2 bedrooms, 2 baths, large front room, large dining room, new refrigerator, new carpeting throughout, new linoleum tile in kitchen & hall, vertical blinds, washer/dryer, cable, golf course view from screened in porch, no pets, children allowed for 2 weeks only, newly decorated club house, man made lake for fishing, picnic area, golf course \$45,900. Marion Janicki, (813) 863-1192.

HOUSE/SALE — Northwest Homer Township, 3 bedrooms, split level on .5 acre wooded lot, detached 2.5 car heated garage. \$167,000. Dawn Ferrazzi, (815) 838-4323.

CONDO/SALE — Woodridge, Dover Court, 2nd floor, 2 bedrooms, 1 bath plus dressing room, walk in closet, living room w/fireplace, dining room, 2 decks, laundry room, appliances, CA, 1 car garage, close to I-55 and 355, excellent condition. \$98,000. Sandy Rodeghero, (630) 852-5311.

HOUSE/SALE — Darien, 3 bedrooms, 2 baths, LR, DR, kitchen completely remodeled w/oak cabinets, all appliances, new washer/dryer, 1-car attached garage, huge fenced back yard, 2 miles from lab. \$174,500. Ginger Warren, (630) 963-1612.

HOUSE/SALE — Bolingbrook, 3 bedrooms, hardwood floors, 9' ceilings, library w/built-in bookcase & computed center, extensive landscaping, 15 minutes from lab. Mark Petri, (630) 759-2670.

HOUSE/SALE — Brand new, 2 story, 4 bedrooms, 2.5 baths, full basement, CA, LR, DR, FR w/fireplace, hardwood floors, 12' x 20' deck, 2.5 car attached garage, unincorporated Hinsdale, 5 minutes from lab. \$229,000. Kathy Vanoskey, (815) 730-9337.

CONDO/RENT — Westmont, 1 bedroom, gas & water included, outdoor swimming pool, close to Argonne, available March 15. \$620/month. Ruth Chen, (630) 789-1194.

CONDO/RENT — 1 bedroom, 1 bath, Gulf of Mexico beach at Sundial Resort, Sanibel Island, Fla., fully equipped, fantastic view of Gulf from screened lanai, weeks available starting July 4, 98. Susan Webster, (630) 963-9604 or web site <http://www.sundialb407.com>.

WANTED

SKIS — Downhill skis, boots and bindings, size 8, woman's, must be in good condition. Roxanne Purucker, (815) 469-3658.

COMPUTER — Apple IIe or Apple IIc computer, in working condition. Floyd Dunn, (630) 985-9452.

MISCELLANEOUS — Large patio blocks & fireplace grate. Rod Habbe, (815) 838-3444.

GOLFERS — Interested in joining the Argonne "Double Eagles" golf league for the 1998 season, league play every Wednesday at Village Greens Golf Course, Woodridge, begins on Wednesday, April 8 and runs for 24 weeks. Contact Vy Milunas, Rich Pagel or Jon Garcia.

GOOD HOME — For 30 lb. black dog, mixed breed, female, needs to be spayed, white spot on chest, housebroken, loves fetching toys, perfect addition to the family. Joanne Thomas, (815) 723-0681.

TO BE GIVEN AWAY

SOFA BED — Patrick Decrock, (630) 910-6135.

MISCELLANEOUS — Free for hauling, approximately 26, 6' x 8' sections, used privacy fencing & approximately 1,000 bricks. Skip Robinson, (815) 741-9080.

LOST

EARRING — 1, golf leaf pierced earring, sentimental value. Nahed Guirquis, (630) 887-9526.

The classified ad request form is available on the World Wide Web at <http://www.anl.gov/OPA/local/news/adform.html>